

CLAIMS

1. Rapid coupling device, in particular for use in compressed air lines, wherein the coupling comprises a plug-in and a receiving coupling socket, c h a r a c t e r i s e d
5 in that the coupling socket body is made from one single piece.
2. Rapid coupling device according to claim 1, wherein the coupling socket is adapted to receive a coupling plug-in and the socket comprises
- a coupling socket body;
 - 10 - a valve located inside the coupling socket body;
 - a valve spring urging the valve into a closed position when not coupled to a coupling plug-in;
 - a gasket/seal between the valve and a valve seat arranged in the coupling socket body;
 - 15 - locking means arranged in the socket for locking a coupling plug-in into secure coupling with the socket;
 - a locking release means slidably arranged on the outside of the socket body and influenced by a spring into a locking position.
- 20 3. Coupling according to claim 2, c h a r a c t e r i s e d in that the valves travel in an interior cylindrical sliding surface provided in an interior wall of the socket body is less than 10 mm, preferably less than 5 mm.
4. Coupling according to claims 2 or 3, c h a r a c t e r i s e d in that the valve is re-
25 tained in the socket body by an O-ring.
5. Coupling according to any of the preceding claims, c h a r a c t e r i s e d in that the valve is made from a resilient material and that the diameter of at least a part of the valve is larger than an interior diameter of the socket body.
- 30 6. Coupling socket for use in compressed air lines, c h a r a c t e r i s e d in that the socket comprises locking means for retaining a plug-in device, valve means, connec-

tion means to a means for conveying compressed air, wherein the socket body is a single piece.

5 7. Method for assembling a rapid coupling socket device, wherein all parts are mounted through the coupling opening in the socket body.

8. Method according to claim 7, characterised in that the assembly is as follows:

- 10 a) the valve spring is inserted;
- b) the valve is inserted and fitted inside an inner cylindrical sliding surface provided in an interior wall of the socket body and fitted partly inside the valve spring;
- c) a first O-ring is arranged in a inner gasket groove;
- d) a second O-ring is arranged in an outer gasket groove;
- 15 e) a ventilating ring is arranged about the outside of the socket body;
- f) a locking spring is arranged about an outside surface of the socket body and in contact with the ventilating ring;
- g) a ball ring for retaining locking balls is arranged in contact with the locking spring together with at least two locking balls and, optionally, two locking pins;
- 20 h) a ball lock ring and
- i) an outer locking ring encapsulating all items arranged on the outside of the socket body.